USDA - FSA
Aerial Photography Field Office
NAIP 2004 Post Mortem

November 17, 2004

Shirley McLaren
Project Manager
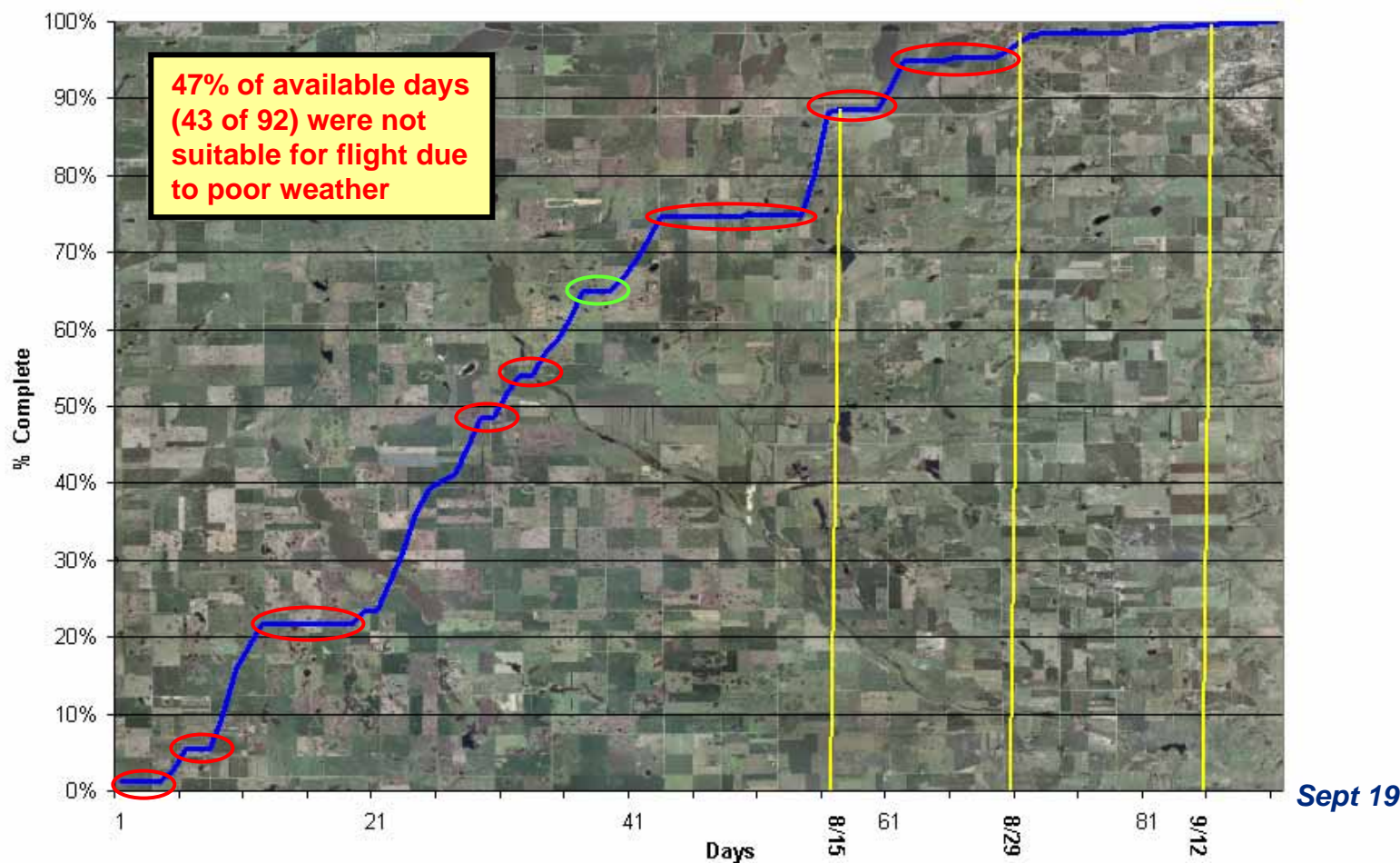
MDA ™ *Mapping Group*

Agenda

- *Image Acquisition*

- *Image Production*

- *Observations and Suggestions - NAIP 2005*

Image Acquisition

Image Acquisition Progress for North Dakota 2004

47% of available days (43 of 92) were not suitable for flight due to poor weather
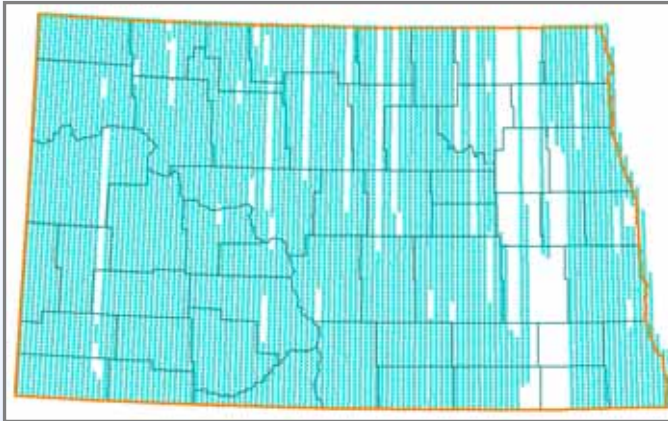
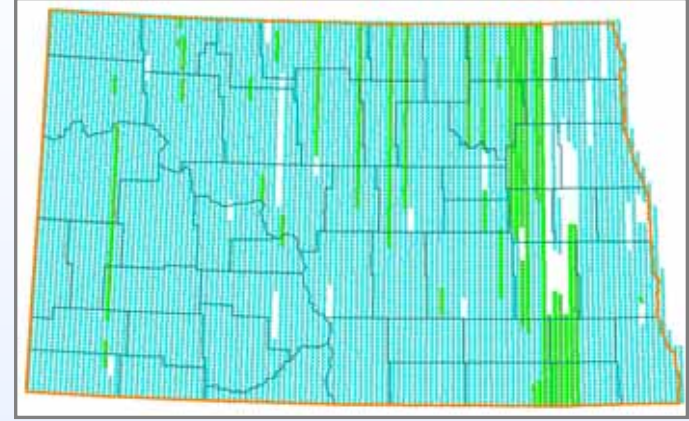aircraft maintenance   > 3 days poor weather

Image Acquisition Progress for North Dakota 2004

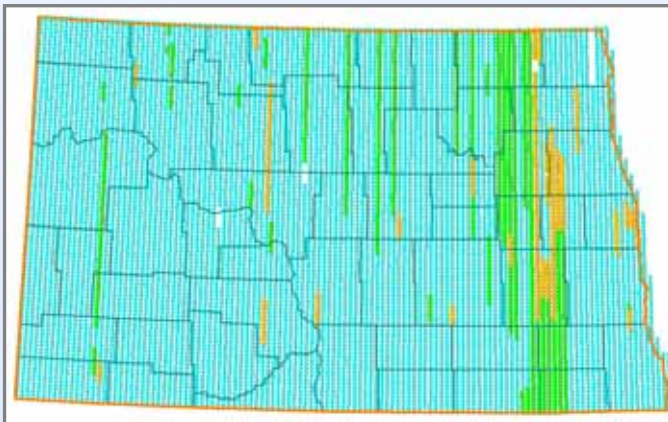**Image acquisition pattern directly affects the CCM delivery schedule**

August 15
86% DOQQs

August 29
97% DOQQs

September 12
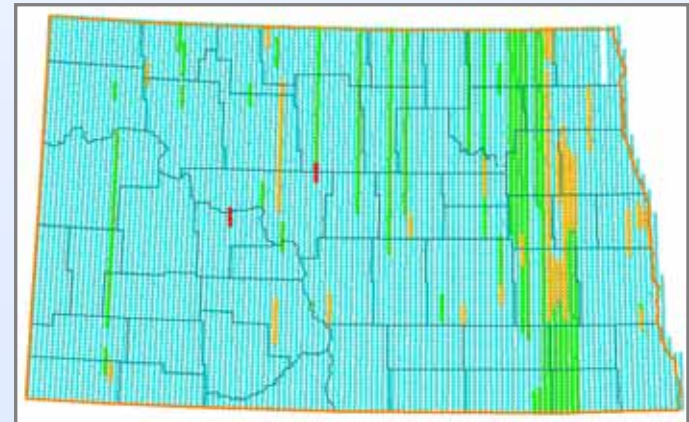99.5% DOQQs

September 19
99.9% DOQQs

Image Acquisition: Lessons Learned

- Completion of image acquisition is the most significant milestone.

- Image acquisition pattern directly affects the ability of a contractor to deliver CCMs earlier in the project.

- Flying efficiency is in conflict with progressive CCM delivery.

- Larger award areas = more efficient aircraft utilization.

North Dakota 2004
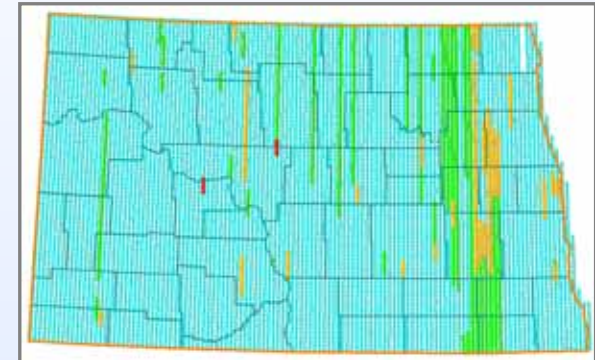
Incomplete county coverage exists until the very end of the flight window

Image Production

Lessons Learned in 2003 and Implemented in 2004

- **Data Management:** We improved and implemented our USDA Production Tracking Database.

- **Data Storage Capacity:** We increased our stand-alone and contingency storage capacity.

- **Scanning:** We scanned film before titling to minimize film handling.

- **Faster AT:** We implemented faster direct georeferencing procedures using IMU data.

- **Tonal Balancing:** We included our radiometric and tonal balancing process into our core production workflow to meet the new specification for NAIP 2004.

Clean scanning room environment

2004 Progress: The "NAIP" lag

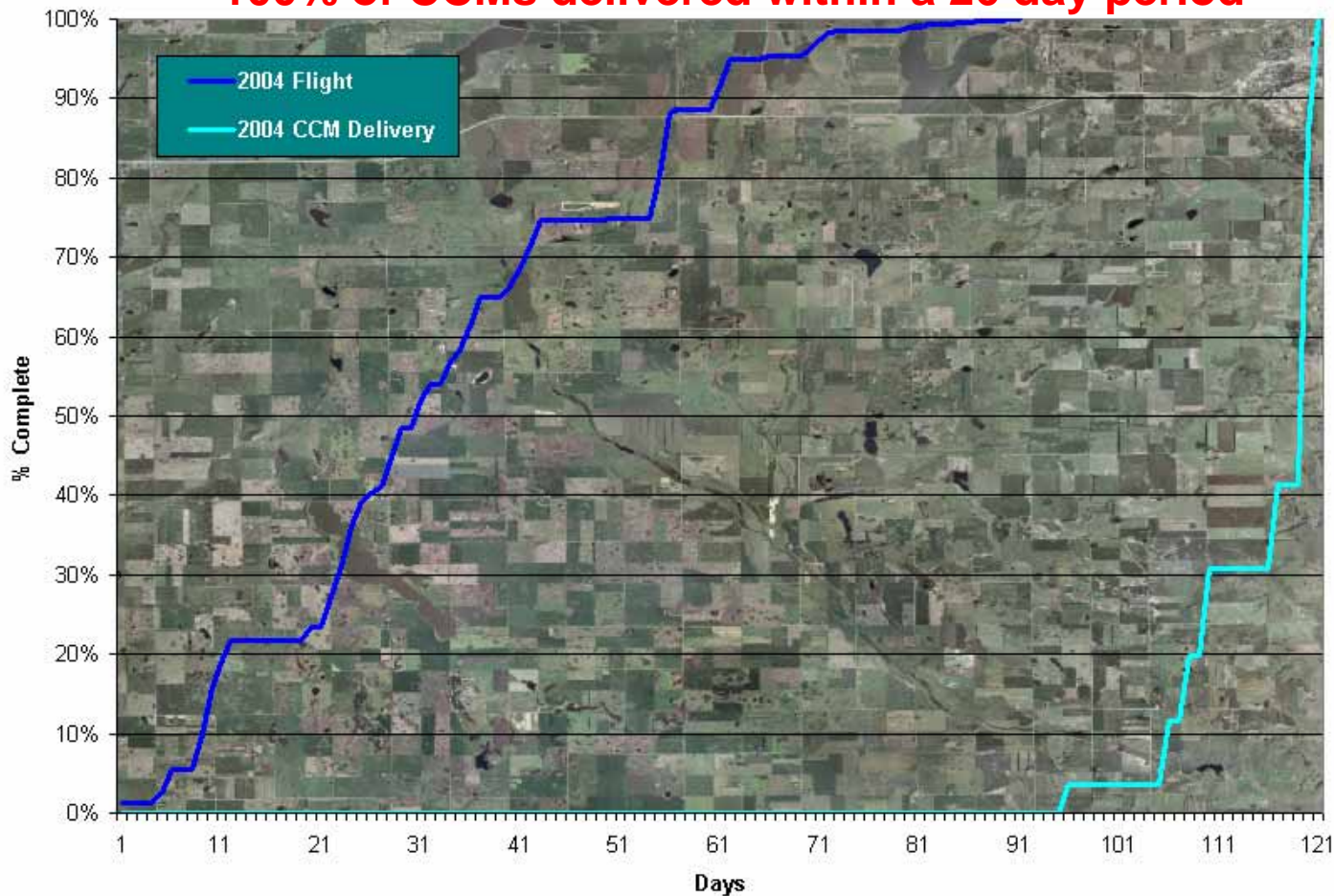100% of CCMs delivered within a 26 day period

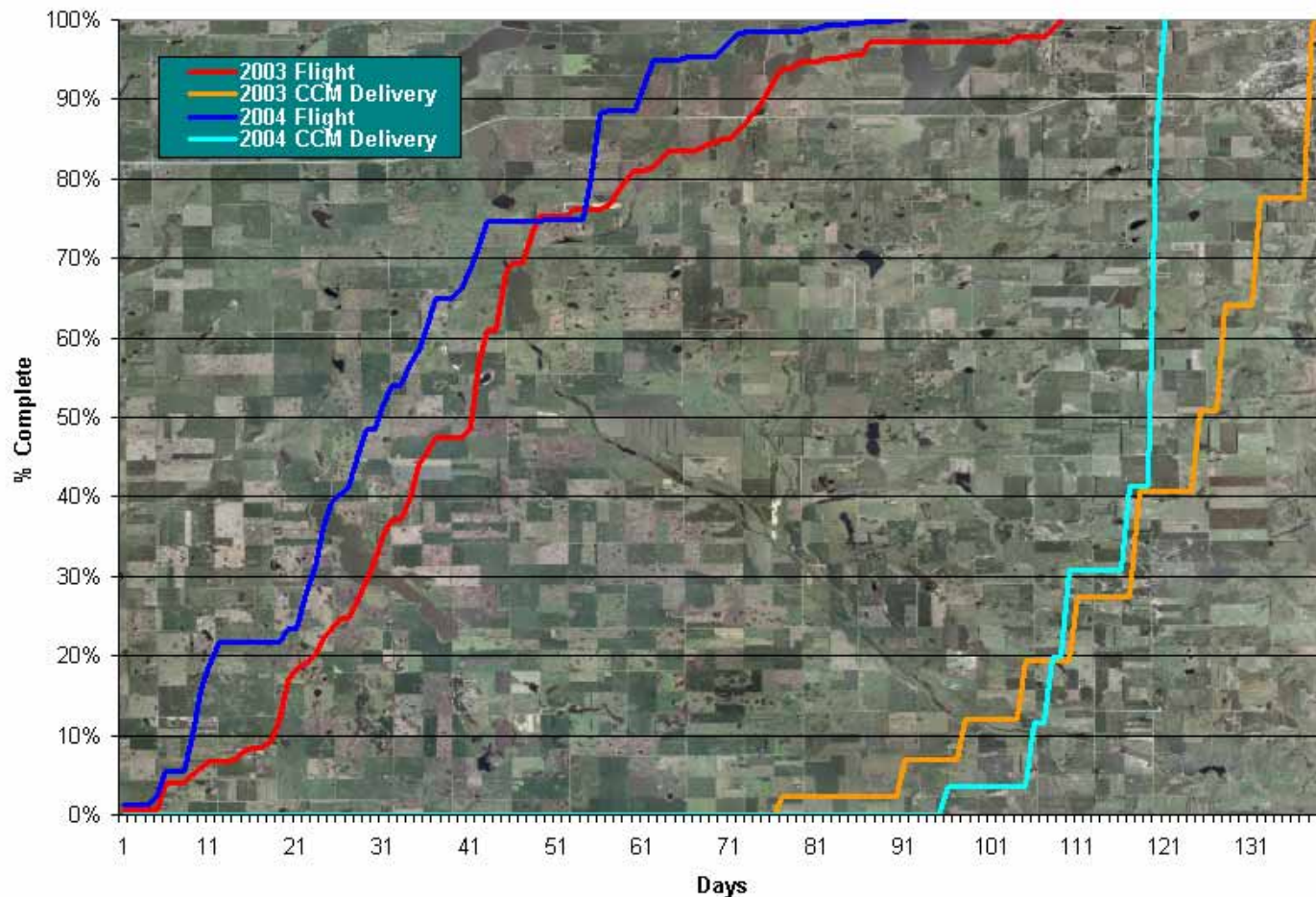# Image Production Progress 2003 vs. 2004

Image Production: Lessons Learned

- Time lag between flight and CCM delivery still exists.

- During the "lag period" DOQQs are created and stored - ready for compression and delivery.

- We are working on solutions to reduce the time lag between flight and product delivery.

- In NAIP 2004, we used a fraction of our total production capacity.

- This production capacity, along with our digital processing facility is ready for NAIP 2005.
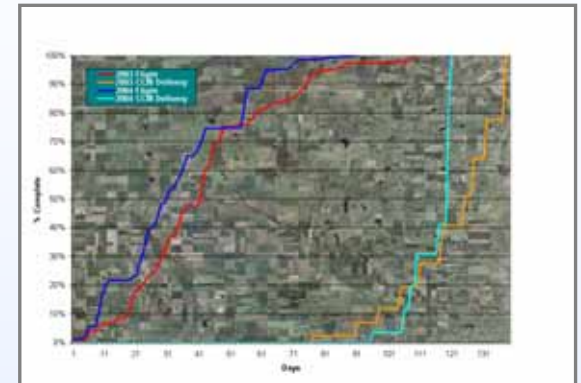
Time lag between flight and delivery of CCMs
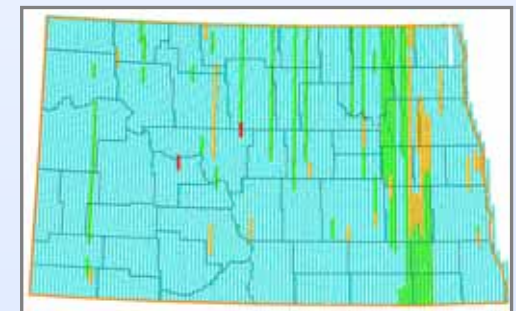
Incomplete coverage for majority of counties until very end of flight window

Suggestions for **NAIP 2005**

NAIP 2005 Recommendations

- **Image Acquisition: Allow contractors to design flight plans based on the GSD and accuracy requirements of the final product - irrespective of the image sensor offered.**

- *Result: Contractors can provide high quality imagery using best value solutions.*

NAIP 2005 Recommendations

- **Image Specifications: Continue to work on the definition of acceptable imagery - especially for 1m states.**

- *Result: Contractors understand the expectations of the USDA and their partners.*

- **Image QC and Acceptance: Further share APFO QC tools and procedures with contractors, so that they are used to check products prior to shipment.**

- *Result: Product acceptance is standardized, first-time acceptance rates will increase and the burden on APFO QC staff is lessened.*

- **Contractor Feedback: Continue to provide performance feedback to contractors on an individual basis.**

- *Result: Contractors can continue to improve performance.*